

PROJECT ASSISTANCE COMPLETION REPORT

Project Title : St. Kitts/Nevis Resource Management Project
 Project Number : 538-0108
 Funding Period : 9/28/84 - 3/31/88
 LOP Funding : \$1,500,000
 PACD : 9/30/87, extended to 3/31/88

I. PURPOSE

The purpose of the project was to establish appropriate soil and water conservation practices in demonstration areas on agricultural land and to strengthen the institutional capacity to maintain and extend these management practices.

II. BACKGROUND

The purpose was to be achieved through stabilization of up to three gullies (exhibiting three common types of gully erosion problems) and terracing approximately 135 acres of agricultural land in St. Kitts and through the establishment of a Land Unit and preparation of surface water development and watershed management plans and demonstration subprojects in Nevis. An island-wide soil conservation plan was also to be developed, through which policies supportive of proper land and soil use were to be established.

The sites and specific activities are described below.

St. Kitts

- 1) Lavington/Lynches erosion was at early stages. To minimize soil erosion losses, terracing of about 135 acres and agroforestry intermixed with permanent pasture for restock at the upper slopes was planned. Under a land settlement plan, farmers were to be offered long-term leases to cultivate about 40 acres of the terraced area.
- 2) Sir Gilles was to demonstrate gabion and channelization techniques appropriate for a flat bottomed, meandering gully. On-site supervision and training were to be provided during the operations to ensure that earth moving and gabion establishment were done appropriately. A shelter belt was to be established along the sides of the gully.
- 3) Hope Ghaut was the third site considered in the project. It was a highly developed, headcut type gully threatening the water pipeline to four towns and the only access to 60 acres of farm land. It was considered ideal to demonstrate procedures to prevent further degradation in this advanced type of gully erosion. The sandy soil and continued practice of tree cutting for charcoal production were identified as the major factors leading to the severe erosion of the area. Specific measures to stabilize the area were to be developed during the project implementation phase.

Nevis

A Land Unit within the Nevis MOA was to be established and supported with responsibility to:

- 1) develop and implement a surface water development and use plan;
- 2) develop and implement a watershed management plan;
- 3) manage subprojects activities in support of the two plans; and
- 4) assist the government to establish policies supportive of proper land use and soil and water management to monitor these areas.

III. SUMMARY OF INPUTS AND ACCOMPLISHMENTS

INPUTS

In order to accomplish these activities, USAID planned a budget of \$2.0 million for technical assistance, earth moving equipment, field vehicles, meteorological and hydrological equipment, soil and water testing equipment, survey equipment, selected agricultural commodities, short-term and on-the-job training. Short-term technical assistance was provided in hydrology, geology, watershed management, forestry, terracing design specifications and civil works. Two long-term technicians provided overall project implementation and on-the-job training through a direct contract with DEVRES, Inc. The two DEVRES long-term specialists, a Project Coordinator and a Water Resources Specialist were assigned to the Project from 1/86 to 9/87.

The original grant budget, revised budget and actual disbursements are outlined below (US\$ thousands).

	<u>9/84</u>	<u>1/86</u>	<u>Actual</u>
	<u>Grant</u>	<u>Revision</u>	<u>Disbursements*</u>
1. Technical Assistance	550	734	849.998**
2. Training	90	90	-
3. Equip. & Commodities	406	406	269.844
4. Civil Works, Terracing, Subprojects and Shelterbelts	804	770	132.404
5. Contingency	<u>150</u>	<u>0</u>	<u>.816</u>
Total	2,000	2,000	1,253.062

* as of 05/31/89

** includes training

The original grant, signed 9/28/84 obligated 1 million of the \$2 million budget. Amendment No 1. to the Grant, signed 7/25/85, added \$500,000 more, but the breakdown of this funding by line item was not elaborated. No additional funding was obligated beyond the \$1.5 million. An unexpended balance of \$148,000 was deobligated in 8/88.

ACCOMPLISHMENTS

During the life of the project the following activities were achieved.

The planned training of extension agents and teachers was accomplished. Four participants were trained for one month each at the Smithfield Soil Conservation Training Center in Jamaica in theory and methods of soil conservation. In-country training was achieved for about 20 extension agents and science teachers in two weeks of training on the principles of erosion, estimating soil loss, erosion control, agronomic practices for erosion control, estimating storm water runoff, engineering surveys and engineering measures related to runoff and erosion control.

Two Soil Conservation Planning Guide and Handbooks were completed, one for St. Kitts and one for Nevis. It was originally planned to be a soil conservation plan for the entire country, but it was downgraded to a planning guide. This was largely a result of the failure of the MOA/St. Kitts to agree to update the soil survey and resource inventory on which to base a soil conservation plan.

Activities Specific to St. Kitts

At the Lavington/Lynch's site, terracing of about 100 of the planned 135 acres was completed, but the small farmer settlement plan was terminated by the MOA.

A second site was developed for the farmer settlement plan at La Vallee, but it was not realized, again, largely because of a decision by the MOA.

The Sir Gilles site was stabilized to control the lateral enlargement of the ghaut to protect buildings and minimize further loss of crop land.

The advanced headcut type gully at the Hope Ghaut site was stabilized with two earthen, floodwater detention, storage reservoirs and eighty acres of level basin storage terraces.

Activities Specific to Nevis

A Surface Water Resource Development Work Program was completed for Nevis. Baseline resource data was collected, watersheds mapped, design parameters and procedures for planning surface water facilities were developed, evapotranspiration and crop water needs were developed and a process for evaluating the benefits of surface water developments for livestock and irrigation was included. The work program also included procedures for construction of earthen dams, concrete structures, diversions and water pipelines. It had maintenance inspection procedures and implementation guidance, as well.

A Soil Conservation Planning Guide and Handbook for Nevis was accomplished in lieu of the originally require Watershed Management Plan for Nevis, as it was considered that to do both would be a duplication of effort. This requirement was deleted. In addition, detailed soil management plans were developed for three estates: New River Estate, Maddens Estate and Cades Bay/Spring Hill Estate.

Although the DEVRES contract called for installation of only 6 to 12 demonstration subprojects on Nevis, over 20 soil and water conservation subprojects were actually completed because of the strong interest and collaboration of the MOA/Nevis and Nevis farmers. Seventeen of the subprojects involved developments for storage of over 3.7 million gallons of water for agricultural purposes. These are broken down as follows:

- * 8 livestock water developments;
- * 7 supplemental irrigation water developments;
- * 2 terrace developments encompassing about 27 acres of crop land;
- * 2 windbreak developments; and
- * 1 windmill and pipeline development.

IV. DEVELOPMENT IMPACT

The developmental impact on the specific work sites that were completed is significant for the short and medium term. The long range developmental impact of these site activities will be contingent upon maintenance. The duplication of the conservation practices throughout the country will depend on the priorities of the GOSKN and the availability of financial resources for conservation activities.

The success of the site specific activities was very favorable on Nevis, where actual site specific activities exceeded the plans and cooperation was excellent. The level of enthusiasm, cooperation, follow-up and maintenance was very encouraging on Nevis. This is in contrast to the less favorable level of cooperation noted on St. Kitts, including abrupt personnel changes, equipment misuse and unfavorable policy decisions by the MOA which ran counter to the intent and conditions of the project design. This follows the pattern of experience throughout the Project, from policy consideration and personnel assignments to timely submission of financial claims.

Policy establishment was among the least successful components of the Project. Conservation legislation and policy change were not adequately addressed in the project design. No environmental policy specialists were involved in the project design and no environmental policy analysis is included in the Project Paper. Therefore, while some conservation activities were conducted, there is no legal legislative basis to institutionalize these practices because the reform, development and implementation of legislation, policies and regulations supportive of proper land and water use were not achieved.

Much effort was put into developing a small farmer land settlement and food crop production activity, but it was blocked from implementation on two different sites by the MOA, despite CP's and special covenants that attempted, albeit inadequately and unsuccessfully, to address the policy issues.

Development of an evaluation plan was included in the PP as special covenant B.4. (PP, page 52) and evaluation arrangements called for two evaluations (PP, page 53). Despite this, no evaluation was ever carried out nor was there any collaborative evaluation plan developed either during the course of the project or three months prior to the PACD, as called for in the design. Thus, no formal evaluation results can be drawn upon to assess the development impact.

V. RECOMMENDATIONS FOR CONTINUING MONITORING

Biannual monitoring to assess maintenance of the project sites, replication of conservation practices and adherence to the covenant on use of equipment for conservation would be ideal. Project work done by the St. Kitts Sugar Manufacturing Corporation (SSMC) from 7/87 to 3/88 has not yet been claimed for reimbursement. St. Kitts received \$30,908.90 in advances over the LOP for civil works and has no remaining outstanding advance balance. Nevis received \$97,306.99 in advance over the LOP for civil works and has an outstanding balance of \$2,323.43. Another implementation letter should be written to request that they submit a claim or send a check for the outstanding advance balance. It is recommended that all unspent project funds be deobligated and a letter be sent to the GOSKN to advise them that their window of opportunity has expired.

VI. LESSONS LEARNED

Long-term commitment to natural resource conservation practices cannot be ensured by the demonstration method alone, without addressing the underlying legislation, policy and implementing regulations to provide a legal framework for continued attention to land and water conservation. Even with the legal framework in place there are no guarantees, but at least there is a solid legal basis upon which to build.

The Project was designed in collaboration with the National Agricultural Corporation (NACO). Just as implementation began, NACO and the St. Kitts Sugar Manufacturing Corporation (SSMC) were merged into one entity. While NACO's mandate of responsibility for agricultural lands fit very well into the planned project, when it was merged with SSMC, many of these responsibilities were lost in the shuffle and in the face of the sugar business priorities. While SSMC assumed all of the responsibilities on paper that were to have been assumed by NACO, hindsight shows that there was never a serious commitment to the Project or its objectives on the part of SSMC or the MOA/St. Kitts. One clear example of this was the abrupt change of MOA/St. Kitts project manager in 1/86 which left the project in the hands of a political appointee with little initiative or decision making authority.

The PACD was extended for 6 months, from 9/87 to 3/88, but the TA contract was not extended. Work effectively closed down with the departure of the TA team, especially on St. Kitts. The lesson here is that decisions on project extensions without concurrent TA contract extension, should be weighed carefully in light of host government capacity.

A lesson specific to the country of St. Kitts and Nevis is that what is successful on Nevis will not necessarily be successful on St. Kitts. While this may be a temporary condition linked to the lack of serious commitment to conservation or development on the part of the current politicians on St. Kitts, it has been demonstrated very clearly under this Project and will be worthy of note for future endeavors.

cc: Darwin Clarke

Clearances:

J. Sleeper/ARDO Draft 5/5/89
L. Laird/ARDO Draft 7/18/89
D. Chiriboga/PDO Draft 5/9/89
R. Grohs/PROG Draft
T. Fallon/CONT & Actg. DD Draft
J. Baird/INFRA Moody for 5/8/89

Doc 1955b: P7-12:RJM ^{RJM} draft 3/20/89: RJN edited 5/5/89: 6/1/89:6/7/89

Cleared original to: L. Frost/PDO